LOCKHEED AIRCRAFT CORPORATION	ENGINEERING STUDY ☐ CHANGE PROPOSAL ☒	LAC 174
DATE 8 April 1964	AFFECTS: WSPO ☐	PROJECT ☒

NAME OF MAJOR COMPONENT	PART OR LOWEST SUBASSEMBLY	PART NO. & MODEL OR TYPE

TITLE OF PROPOSAL: WING PYLON DROP TANK INSTALLATION

NATURE OF PROPOSAL:

See Page 2

REASON FOR PROPOSAL:

To provide wing pylon droppable fuel tanks and provisions on all Project articles.

ES	ESTIMATED COST AND TIME INVOLVED:	
	ADDITIONAL FUNDING REQUIRED:	
CP	ESTIMATED COST FOR KITS OR PARTS: See Page 2	STAT
	ADDITIONAL FUNDING REQUIRED: YES (SP-1923)	

ITEMS AFFECTED BY PROPOSAL:

SAFETY	MISSION EFFEC-TIVENESS	PERFORM-ANCE	OPERATING PROCEDURE	INTER-CHANGE-ABILITY	WEIGHT OR WEIGHT & BALANCE	TOOLS & SUPPORT EQUIPMENT	MAINTE-NANCE PROCEDURE	SERVICE LIFE	FLIGHT MANUAL	MAINTE-NANCE MANUAL
☐	☒	X	☒	☐	X	X	X	☐	X	X

EST. MAN/HRS. REQ'D. TO ACCOMPLISH CHANGE IN FIELD

SOURCE OF PARTS FOR KIT	AVAILABILITY _____ WEEKS AFTER APPROVAL
GFAE & LAC	See Page 3

DISPOSITION OF SPARES AFFECTED

None

DATE _____ APP P/FA

REC. APP IDEA/FA DATE _____

INITIATED BY:	APPROVED: XXSPO
Customer	PROJECT

NATURE OF PROPOSAL:

The wing pylon drop tanks will consist of a 100 gallon capacity, cylinderically shaped tank and pylon assembly. Each tank will be equipped with a fuel boost pump to transfer fuel, and an atmosphere vented fuel filler cap for filling and venting the tank. A fuel drain plug will be provided to facilitate removal of fuel or condensed water from the tank. The pylon portion of the tank assembly will contain the breakaway portions of the fuel and electrical disconnects as well as the ejection springs.

The pylon tank assembly will attach to a permanently installed "PYLON STUB" at wing station 190. This stub will contain the fixed portions of the fuel and electrical disconnects, the ejection linkage and the ejection solenoid.

Fuel feed will be accomplished by transferring fuel at boost pump pressure from the tank to the auxiliary tank feed line, (main tank feed line on models with ARS), downstream of the existing check valve in that line. This will result in the drop tank fuel always being used first. The existing fuel system will remain unchanged and function exactly as at present as soon as the drop tanks are empty, or if the drop tanks are not used. This also holds true in the event of drop tank boost pump failures or, if for any reason, the pressure in the drop tank feed line falls below the wing tank pressure.

The total weight change to the aircraft is anticipated not to exceed 300 pounds. The permanent (nonjettisonable) weight change will not be more than 100 pounds. It is further presumed that the installation can be accomplished such that the location will not shift the C.G. and, therefore, no change in ballast will be required.

COST BREAKDOWN:

STAT

Contract SP-1923

SCHEDULE:

A. Fabrication of 50 sets of tanks:

One set of tanks available 18 weeks after go-ahead, 2nd set in 20 weeks and one set each week thereafter till total of fifty is reached (68 weeks).

B. Installation and Flight test:

Aircraft due for installation 16 weeks after go-ahead, installation and flight test complete 22 weeks after go-ahead.

C. Fabrication and Assembly of Kits:

Six kits will be available with first six sets of tanks. The total six kits available 24 weeks after go-ahead.